

REMARKS/ARGUMENTS

Reconsideration of the present application is respectfully requested.

Applicant requests entry of the previously submitted amendment dated December 20, 2004. Reference to the December 20, 2004 amendment will be made throughout the following Remarks.

A. STATUS OF THE CLAIMS

Claims 1-4 and 7-23 are presented in the case for continued prosecution, claim 6 having been canceled by this amendment.

Claim 1 has been amended to include the subject matter of claim 6. Claim 1 now recites that the suitable material is a powder and that the bonding between the layers is realized by means of a binder. Claim 6 has therefore been cancelled.

Claim 1 has also been amended to recite that necks are formed between the powdered particles during the sintering step. Support for this amendment can be found, for example, at page 8, lines 24-26 of the application.

Claims 7-11 have been amended to be dependent upon claim 1 as a result of the cancellation of claim 6.

B. THE INVENTION

The present invention includes a method for fabricating a functional dental element wherein layers of a suitable material are successively applied and subjected to a sintering step followed by infiltration with a second phase. A dental element obtainable by this method is also claimed.

The sintering step of the present invention has the advantage that necks are formed between the powdered particles, thereby minimizing shrinkage and enhancing mechanical strength (page 8, lines 13-14 and 24-26).

C. SUMMARY OF OFFICE ACTION DATED SEPTEMBER 21, 2004

In the prior Office Action, claims 1-4, 6, 9, 11 and 20-23 had been rejected under 35 USC 102(a) as being anticipated by Brodtkin (US 6,322,728). Claims 1-6, 9-15, 17, 19 and 20 had been rejected under 35 USC 103(a) as being unpatentable over Brodtkin in view of Sachs (US 5,204,055). Claims 7 and 8 had been rejected under 35 USC 103(a) as being unpatentable over Brodtkin in view of Sachs and Yamada (US 5,641,434). Finally, claim 16 had been rejected under 35 USC 103(a) as being unpatentable over Brodtkin in view of Sachs and Ota (US 4,705,762).

Applicant had filed a Response to these rejections on December 20, 2004 arguing among other things that Brodtkin, the primary reference, fails to teach forming necks between the powdered particles during the sintering step (see 3, paragraph 1 of Response). The Examiner had mailed an Advisory Action on December 29, 2004 stating that Applicant's argument concerning neck formation was not specifically recited in the claims.

D. THE CURRENT SUBMISSION

This Submission has been made to amend claim 1 to specifically recite that necks are formed between the powdered particles during the sintering step. Applicant refers to paragraph C of the previous Response filed December 20, 2004 for a discussion of the patentability of this limitation.

In summary, Applicant had argued in paragraph C that Brodtkin fails to teach forming necks between the powdered particles during the sintering step. At col. 4, lines 13-49, Brodtkin teaches that multiple layers of a powdered material including a binder are deposited and heated or cured to further promote binding of the particles. The Examiner had assumed that the subsequent heating of Brodtkin is equivalent to the sintering step of the present invention, since the heating step of Brodtkin would form a "coherent mass" of powdered particles (see page 2, paragraph 5 of Office Action dated September 21, 2004).

Applicant argued in paragraph C that the sintering step of the present invention differs from the heating step of Brodtkin since the present invention forms necks between

the powdered particles. Neck formation between the powdered particles minimizes shrinkage of the dental element during sintering thereby increasing mechanical strength (page 8, lines 24-26). Thus, Applicant had argued that the anticipation rejection based on Brodtkin was improper since the present invention does not simply form a "coherent mass" of powdered particles.

Applicant had concluded paragraph C of the previous Response by noting that Brodtkin does mention binder aggregation at the necks, but this binder aggregation should not be confused with neck formation between the powdered particles.

In summary, Applicant respectfully submits that the arguments presented in the previous Response of December 20, 2004 find support in amended claim 1. Reconsideration and removal of the rejection is respectfully requested.

E. THE ADVISORY ACTION

The Examiner had stated in the Advisory Action dated December 29, 2004 that Applicant's arguments concerning neck formation between the powdered particles was not specifically recited in the rejected claims. The Examiner had therefore taken the position that Applicant's arguments failed to comply with 37 CFR 1.111(b) because they amounted to a general allegation that the claims define a patentable invention without pointing out how the language of the claims patentably distinguishes from the references.

As discussed above, Applicant has amended claim 1 to recite this feature of the present invention. In light of the above amendments, it is therefore deemed that Applicant's arguments presented in the previously submitted Response as well as the summary of these arguments presented in the current Response comply with 37 CFR 1.111.

F. FEES

The shortened statutory period for reply to the Advisory Action expired 3 months from the mailing date of the final rejection. A one-month extension of time is hereby requested and PTO Form 2038 is enclosed for the appropriate fee. If it is determined that any further fee is due or any overpayment has been made, the Assistant Commissioner is hereby authorized to debit or credit such sum to Deposit Account No. 02-2275. Pursuant

to 37 C.F.R. 1.136(a)(3), please treat this and any concurrent or future reply in this application that requires a petition for an extension of time for its timely submission as incorporating a petition for extension of time for the appropriate length of time. The fee associated therewith is to be charged to Deposit Account No. 02-2275.

G. CONCLUSION

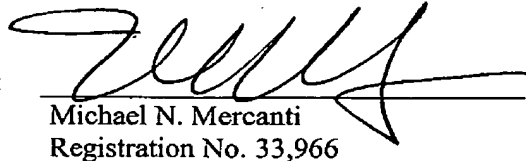
In view of the actions taken and arguments presented, it is respectfully submitted that each and every one of the matters raised by the Examiner have been addressed by the present amendment and that the present application is now in condition for allowance.

An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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